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**Dr. Santanu Das**  
Assistant Professor

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Ref NO: IIT(BHU)/CER/MoE/STARS-JRF/01A

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**Recruitment of Junior Research Fellow in the  
Department of Ceramic Engineering,  
Indian Institute of Technology (BHU), Varanasi**

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Applications are invited from Indian nationals for the following position for the research project titled "**Metal nanostructure assisted plasmonic hot electron induced phase transformation in 2D-transition metal di-chalcogenides for hydrogen evolution reaction**" sponsored by Ministry of Education (MoE), Government of India, for a period of **one year**.

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Name of the position: Junior Research Fellow

Number of positions: 01

Last date of Application: Applicants should apply by **26/04/2023**

Duration of Position: One year (Subjected to extendable as per the instruction from the MoE).

Emoluments (p.m.): Rs. 31,000/- (Consolidated)+ 16% HRA (or as per the institute rule)

Educational qualification: **Essential**

- Degrees in Sciences (Physics, Chemistry) or Engineering (from, any branch), **GATE or NET score (preferable)**.
- Minimum 55% or equivalent CGPA in preceding degree.

**Desirable**

Experience on working with 2D nanostructure synthesis through Chemical Vapor Deposition (CVD) method, metal nanostructure synthesis, and knowledge of materials characterization techniques such as XRD, SEM, AFM, RAMAN, TEM/HRTEM, electrochemical characterizations etc.

Demonstrated experience in plasmonic devices, electronic devices, electrochemical devices, Hydrogen Evolution Reactions (HER), spectroscopic techniques etc. would be an added advantage.

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Age	28 years maximum. Age relaxation applicable as per Government of India (GoI) rules.
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The candidate will primarily work on "**Metal nanostructure assisted plasmonic hot electron induced phase transformation in 2D-transition metal di-chalcogenides for hydrogen evolution reaction**" under the supervision of Dr. Santanu Das; please see the research interests and recent research activities and other details at Dr. Das's research group websites

<https://iitbhu.ac.in/dept/cer/people/santanudascer>

**General Terms and Conditions:**

1. The position is purely temporary and is coterminous with the project.
2. The PI has the discretion to restrict the number of candidates to be called for interview to a reasonable limit on the basis of qualifications and experience higher than the minimum prescribed in the advertisement.
3. Only shortlisted candidates will be communicated to appear in the interview and no other communications in this regard will be entertained.
4. The candidate, when selected, is expected to join immediately.
5. No TA/DA will be paid for attending the interview.

**Interested candidates should send their application with all the relevant academic documents (both soft copies and hard copies) in the attached application format (Page No. 3) to the Principal Investigator in the following address and email id by 26/04/2023:**

To,  
Dr. Santanu Das,  
Assistant Professor,  
Room No: CR-215, Department of Ceramic Engineering  
Indian Institute of Technology (BHU)  
Varanasi 221005 (U.P.) INDIA  
Email: [santanudas.cer@iitbhu.ac.in](mailto:santanudas.cer@iitbhu.ac.in)  
Phone: +91-919918910417

**APPLICATION FOR JRF POSITION in the Department of Ceramic Engineering,  
IIT (BHU), Varanasi, 221005, UP India.**



1. Full Name:
2. Date of Birth:
3. Sex: M/F    4. Category: GEN/SC/ST/OBC
5. Marital Status:
6. Nationality:
7. Physically handicapped: Y / N
8. Names of Father and Mother:
9. Address of Correspondence (including phone No):
10. E-mail Address:
11. Academic Record: (a) GATE/CSIR/UGC National Exam Qualification details with Percent marks/Rank, year of qualifying, etc.:

(b) Qualifying Degree (starting from High School or equivalent):

Examination with Specialization	Name of School, College, University/Institute, with city and state	Year of passing	Subjects	Percentage of marks/GPA obtained	Distinction/Division

12. Details of the project carried out (if any) with duration, place of work, area worked on, mentor/guide's name, description of the project and contribution to the project (in not more than 5 sentences), and publication details (if any):
13. Working experience (if any):
14. Whether currently employed:
15. Time required to join this position:
16. Names and addresses of one referee along with phone number and e-mail address:

**Declaration:** I hereby declare that I have carefully read and understood the instructions and particulars on this application and that all entries in this form as well as in the attached sheets are true to the best of my knowledge and belief.

Date:

Signature

Place:

## Application Instructions

1. All original certificates need to be presented before the interview for verification.
2. The self-attested copies of all the relevant certificates/documents need to submit during application (both soft and hard copies).
3. Provide two academic recommendation letters from previous mentor (s), supervisor(s) or professor.
4. **CSIR (UGC) - JRF or GATE Score is an essential criterion.**
5. Venue of Interview: Department of Ceramic Engineering, IIT (BHU), Varanasi 221 005 UP India.
6. For further clarification regarding the application process, the candidate can discuss with the PI over the phone (+91-919918910417) or email: [santanudas.cer@iitbhu.ac.in](mailto:santanudas.cer@iitbhu.ac.in).
7. **The application should be according to the attached format (Page No. 3).**
8. Please write “**Application for JRF**” in the subject line of the email.
9. Shortlisted candidates will be intimated by email after the deadline.